



Department of Energy

Office of Science
Brookhaven Site Office
P.O. Box 5000
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November 19, 2021

Attention: Michelle Tompkins
New York State Department of
Environmental Conservation
625 Broadway
Albany, New York 12233-3500

Dear Ms. Tompkins:

SUBJECT: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S (NYSDEC's) PROPOSED WATER QUALITY GUIDANCE VALUES FOR PERFLUOROOCTANE SULFONATE (PFOS), PERFLUOROOCTANOIC ACID (PFOA) AND 1,4-DIOXANE – BROOKHAVEN NATIONAL LABORATORY (BNL) COMMENTS

On behalf of the U.S. Department of Energy (DOE), and Brookhaven Science Associates, LLC, this letter presents comments to NYSDEC's proposed water quality guidance values released October 5, 2021, for PFOS, PFOA, and 1,4-dioxane. In summary, we offer the following:

1. As per the NYSDEC release, "The new guidance values support the State's ongoing efforts to safeguard public health, prevent exposure to emerging contaminants, and ensure New Yorkers have access to clean drinking water". However, the proposed Class GA (which is a source of drinking water) levels for PFOS, PFOA, and 1,4-dioxane are inconsistent with the New York State Department of Health (NYSDOH) maximum contaminant levels (MCLs) promulgated in August 2020. During development of the MCLs, the Drinking Water Quality Council (with members comprised of academic scientists, engineers, public water system professionals, and experts from the New York State Departments of Health and Environmental Conservation), followed the available science regarding potential health impacts and technology available to remove these chemicals when recommending the standards for adoption. As noted in the NYSDOH Center for Environmental Health, Public Water Systems and NYS Drinking Water Standards for PFOA, PFOS, and 1,4-Dioxane Fact Sheet (9/2020), MCLs are set at levels with a large margin of protection and far below levels that cause health effects. These levels are set to also consider the availability of drinking water treatment technologies, the ability to accurately measure the contaminant, and the cost associated with removing the contaminant to acceptable levels. Therefore, unless a similar health, scientific, technology and cost-based evaluation was performed, the proposed NYSDEC Class GA guidance values should be the same as the State MCLs.

2. According to the NYSDEC release, "The proposed guidance values for PFOA, PFOS, and 1,4-dioxane will be applied to State Pollutant Discharge Elimination System (SPDES) permits to optimize environmental protection and minimize financial impacts. Guidance detailed in TOGS 1.3.13 will take effect when the guidance values are issued." The proposed guidance values for discharge to Class GA waters are barely above the method detection limits for these compounds. For example, typical detection limits for PFOS and PFOA are between 1.0 ng/L and 2.0 ng/L. However, with the proposed discharge limits of 2.7 ng/L and 6.7 ng/L for PFOS and PFOA, respectively, contaminant breakthrough from the granular activated carbon units typically used for PFAS remediation may not be identified until the limits are already exceeded. There is a similar concern for the proposed limit for 1,4-dioxane with a detection limit of approximately 0.2 µg/L and the proposed discharge value of 0.35 µg/L. The Advanced Oxidation Process (AOP) systems recently approved to remediate 1,4-dioxane are complex to operate, and setting a discharge standard so close to the typical detection limit could result in frequent SPDES exceedance reports.
3. It should be acknowledged that in accordance with an interagency agreement (IAG) with NYSDEC and USEPA, DOE has made significant progress in the remediation of local groundwater through construction and operation of numerous groundwater remediation systems under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Of particular concern is 1,4-dioxane, a ubiquitous contaminant often found at low concentrations and very difficult to treat. Strict adherence to this proposed guidance could result in multiple treatment system shut-downs, loss of hydraulic control of existing groundwater plumes, renegotiation of multiple CERCLA Records of Decision, and remedial system redesigns.

If you should have any questions, please contact Jerry Granzen, of my staff, at (631) 344-4089.

Sincerely,

Robert P. Gordon
Site Manager

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